

**ENGINEERING SERVICES
CODES COMMITTEE
REVIEW SUMMARY**

Decision No. 1999.002

REFERENCE: Letter dated March 16, 1999 from Chris Kates, DOHSM Navajo Area Indian Health Service.

ISSUE: Do suspended acoustical tile ceilings in corridors meet the 1997 NFPA 101 Life Safety Code (LSC) definition "limit the transfer of smoke" found in LSC 13-3.6.2.1, Exception No. 1?

LOCATION: Gallup Indian Medical Center (GIMC), Gallup, NM

BACKGROUND: Building 2000, the main hospital building is a health care occupancy and is fully sprinklered throughout, with quick response sprinkler heads. The suspended ceilings in question are acoustical tiles laid into a metal grid system. They exist in all corridors throughout the facility. The corridor walls are not continuous from the floor to the floor or roof deck above.

DISCUSSION: LSC 13-3.6.2.1 states: "Corridor walls shall be continuous from the floor to the underside of the floor or roof deck above, through any concealed spaces, such as those above the suspended ceilings, and through interstitial structural and mechanical spaces, and shall have a fire resistance rating of at least ½ hr."

LSC 13-3.6.2.1, Exception No. 1 states: "In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 13-3.5.2, a corridor shall be permitted to be separated from all other areas by non fire-rated partitions and shall be permitted to terminate at the ceiling where the ceiling is constructed to limit the transfer of smoke."

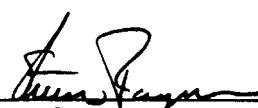
The 2000 Edition of the LSC will clarify this issue and allow the use of "lay-in" type ceilings be used to resist the passage of smoke provided that the joints between such ceilings and walls form smoketight joints and the space above the ceiling is not used as a plenum.

INTERPRETATION: Suspended acoustical tile ceilings in metal grids can be used to meet the corridor ceiling requirements of LSC 13-3.6.2.1, Exception No.1 provided that the ceilings form a continuous membrane with no penetrations, a smoketight joint is provided where the ceiling meets the wall, and the space above the ceiling does not function as an air-handling plenum. Also, any recessed lighting fixtures must be provided with hood enclosures to ensure the integrity of the smoke resistant barrier.

SIGNATURES:


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